

**METHOD FOR RAPID UPLINK ACCESS BY GSM GPRS/EDGE MOBILE
STATIONS ENGAGED IN VOICE OVER INTERNET PROTOCOL PACKET
TRANSFER MODE**

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ABSTRACT OF THE DISCLOSURE

10 A communication system including a mobile station (202, 322) sending a plurality
of uplink radio link control data blocks (328, 332, 336, 340) to a base station (208,
320) in an uplink temporary block flow (248), and receiving a plurality of downlink
radio link control data blocks (326, 330, 334, 338, 342) from the base station in a
downlink temporary block flow (225). The communication system includes a
protocol control unit (214) within the base station, having a base station medium
access control layer (213) that sends an identifier during setup of the downlink
15 temporary block flow (224), and sends an uplink state flag indicating channel
availability in a first one of the plurality of downlink radio link control data blocks
(326). A GPRS/EDGE subsystem (210) is located within the mobile station, having a
mobile station medium access control layer (211) that receives the identifier and the
uplink state flag, and sends uplink data in a first one of the plurality of uplink radio
20 link control data blocks (32) to the base station in response to the uplink state flag
indicating channel availability. The base station medium access control layer sends a
directed acknowledgement in a subsequent one of the plurality of downlink radio link
control data blocks (330) in response to receipt of the uplink data from the mobile
station, and the mobile station sends uplink data in a second one of the plurality of
25 uplink radio link control data blocks (332) in response to the directed
acknowledgement.